



STATE OF MARYLAND

DHMH

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December 16, 2008

Public Health & Emergency Preparedness Bulletin: # 2008:50 **Reporting for the week ending 12/13/08 (MMWR Week #50)**

CURRENT HOMELAND SECURITY THREAT LEVELS

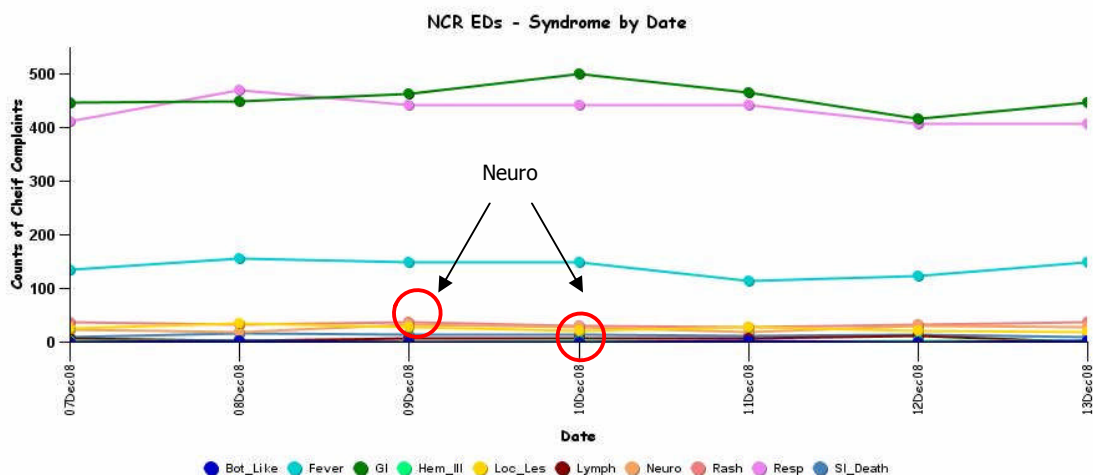
National: Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)
Maryland: Yellow (ELEVATED)

SYNDROMIC SURVEILLANCE REPORTS

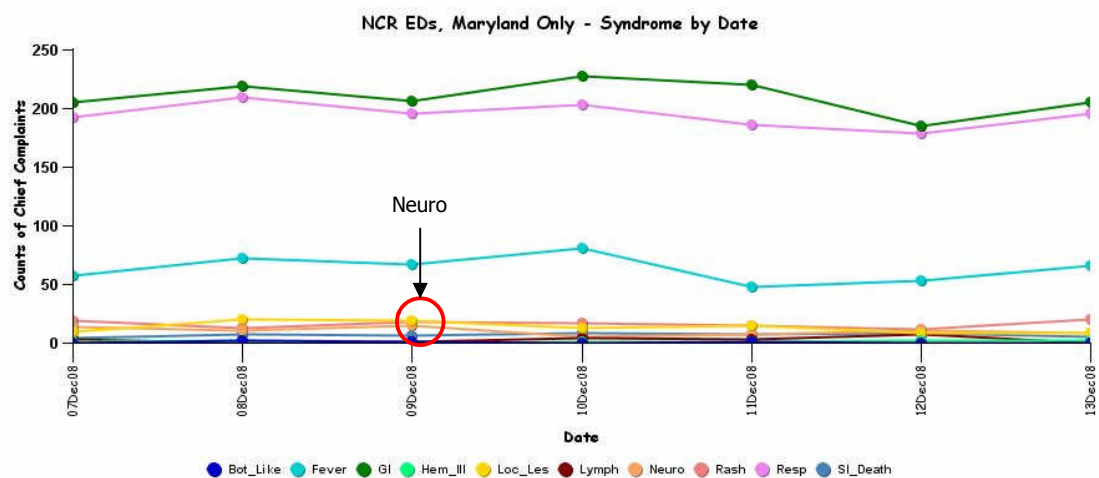
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

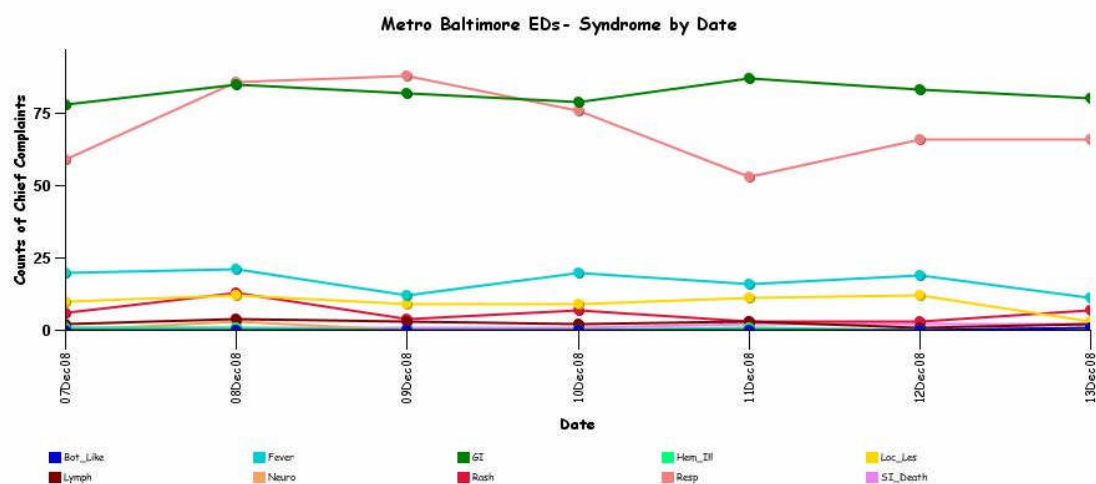
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.



* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.



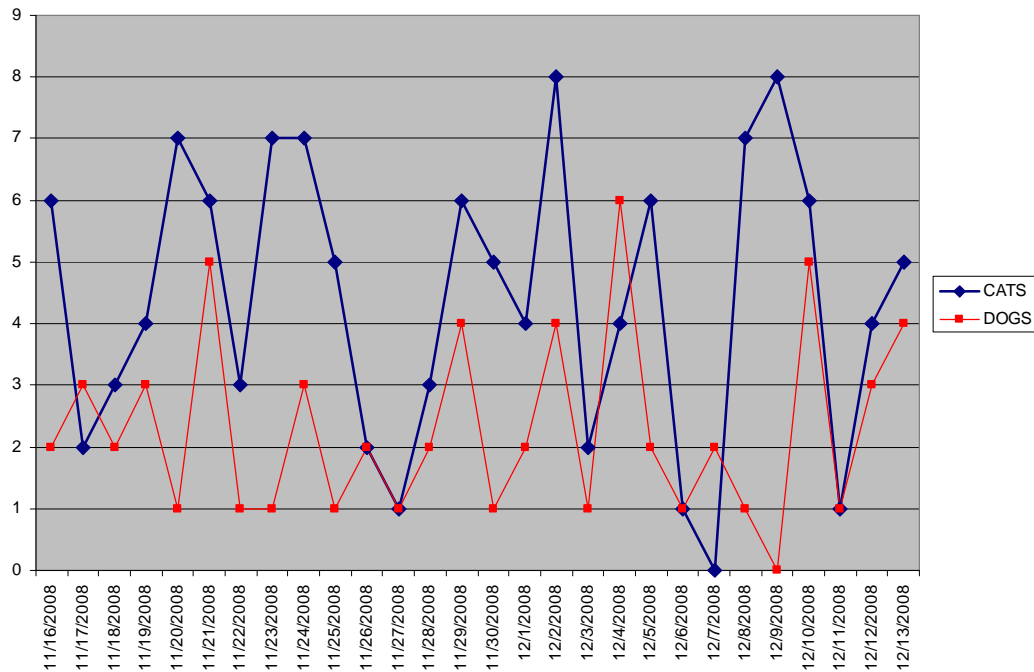
* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.



* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.

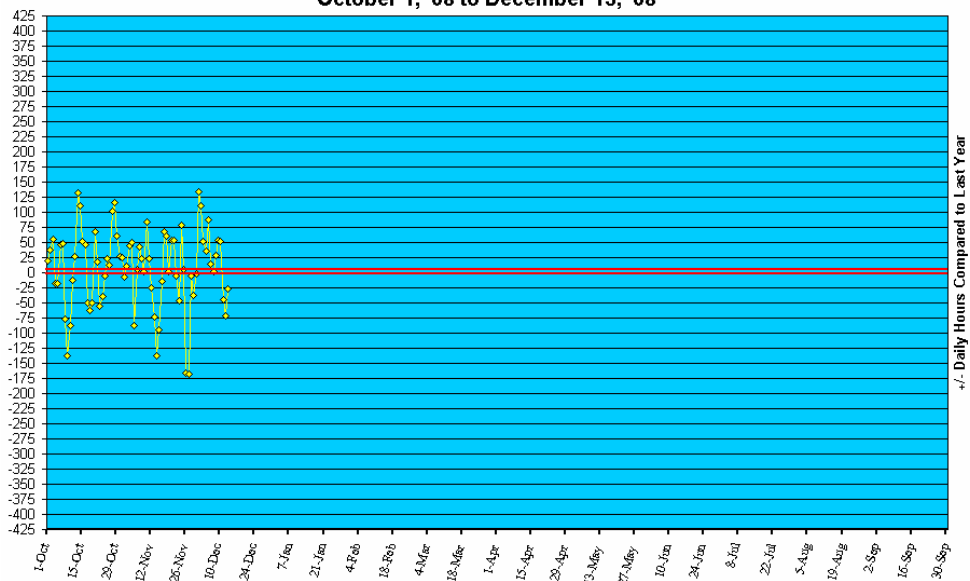
Dead Animal Pick-Up Calls to 311



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/06.

**Statewide Yellow Alert Comparison
Daily Historical Deviations
October 1, '08 to December 13, '08**



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in November 2008 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	<u>Aseptic</u>	<u>Meningococcal</u>
New cases (Dec 7 – 13, 2008):	13	0
Prior week (Nov 30 – Dec 6, 2008):	18	1
Week#50, 2007 (Dec 9 - 15, 2007):	09	2

18 outbreaks were reported to DHMH during MMWR Week 50 (Dec. 7- Dec. 13, 2008):

17 Gastroenteritis outbreaks

11 outbreaks of GASTROENTERITIS associated with Nursing Homes

3 outbreaks of GASTROENTERITIS associated with Assisted Living Facilities

1 outbreak of GASTROENTERITIS associated with a School

2 outbreaks of GASTROENTERITIS associated with Daycare Facilities

1 Respiratory illness outbreak

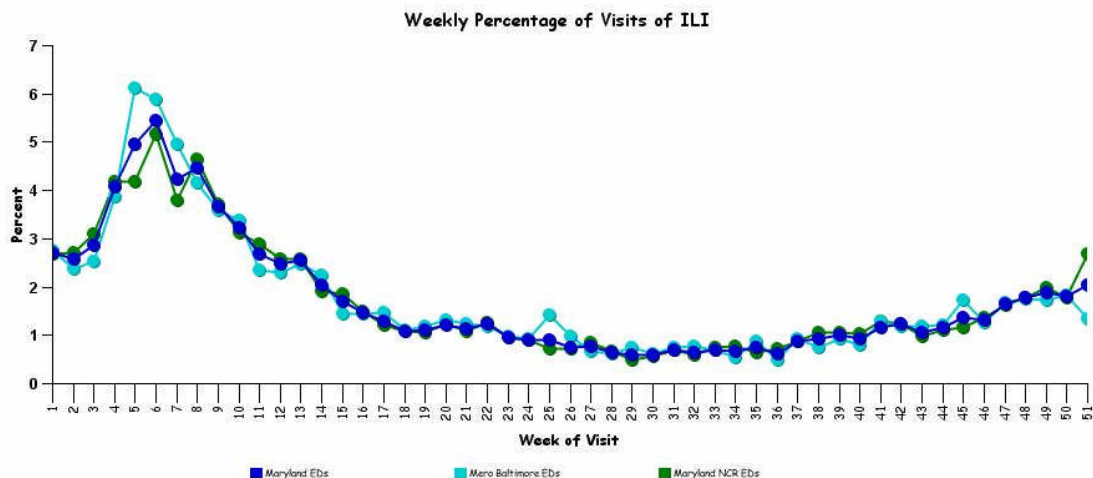
1 outbreak of ILI associated with an Assisted Living Facility

MARYLAND SEASONAL FLU STATUS:

Influenza activity in Maryland for Week 50 was SPORADIC. During week 50, 10 lab confirmed cases of influenza were reported DHMH. The season total is 40 cases.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS:

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO Pandemic Influenza Phase: Phase 3/4: No or very little human-to-human transmission/Small clusters with limited human-to-human transmission, suggesting that the virus is not well adapted to humans

US Pandemic Influenza Stage: Stage 0/1: New domestic animal outbreak in at-risk country/Suspected human outbreak overseas

*More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: <http://bioterrorism.dhmmh.state.md.us/flu.htm>

WHO update: As of September 10, 2008, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 387, of which 245 have been fatal. Thus, the case fatality rate for human H5N1 is about 63%.

AVIAN INFLUENZA, HUMAN (CAMBODIA): 12 Dec 2008. The Ministry of Health of Cambodia has announced a new confirmed case of human infection with the H5N1 avian influenza virus. A 19 year old male, from Kandal Province, developed symptoms on 28 Nov 2008 and initially sought medical attention at a local health centre on 30 Nov 2008. The presence of the H5N1 virus was confirmed by the National Influenza Centre, the Institute Pasteur in Cambodia, on Thu 11 Dec 2008. The patient is currently hospitalized and a team led by the Ministry of Health is conducting field investigations into the source of his infection. Contacts of the case are also being identified and provided with prophylaxis. Of the 8 cases confirmed to date in Cambodia, 7 have been fatal.

AVIAN INFLUENZA, ANIMAL (CHINA and INDIA): 12 Dec 2008. Agriculture officials in Hong Kong today [11 Dec 2008] confirmed that the avian influenza virus that recently hit a large commercial chicken farm was the lethal H5N1 strain, as authorities vowed to explore potential protection gaps in the poultry vaccine and the possibility that smuggled eggs might be a source of the virus. Jolly Choi, spokeswoman for Hong Kong's agriculture, fisheries, and conservation department said earlier tests on 9 Dec 2008 were positive for an H5 virus, but further testing showed that 3 chickens found dead on the farm had the H5N1 subtype, according to a report today from the Associated Press. Meanwhile, York Chow, Hong Kong's secretary for food and health, told reporters at a press conference yesterday [Wed 10 Dec 2008] that experts are focusing on 2 lines of investigation: a possible biosecurity lapse at the farm and if a change in the circulating virus has hobbled Hong Kong's poultry vaccine. The outbreak, China's 1st on a farm since 2003, prompted the culling of more than 80 000 birds and restrictions on poultry imports. Chow said Hong Kong been using an H5N2 vaccine manufactured in the Netherlands since 2003. "Over the last few years it has been proven to be effective, but we also think that because the change of the virus, we might have to look for a more appropriate vaccine," he said in a government press release. The Chinese mainland has been using H5N1 vaccine for poultry over the past few years, which is modified periodically, Chow said, adding that veterinary officials have contacted mainland authorities to explore if a switch to the H5N1 vaccine would be more protective. He said that government officials would also be seeking guidance from experts at Hong Kong University, where vaccine studies in poultry have already been under way since June [2008]. So far there is no evidence that the virus has spread to other farms, Chow said in the statement. Investigators have collected samples from farms to conduct polymerase chain reaction (PCR) testing, and the results should be available in a day or 2. In other developments, poultry trade representatives in Hong Kong said today that smuggled fertilized eggs from China could be the source of the recent H5N1 outbreak, according to a report today from Agence France-Presse (AFP). The Hong Kong Poultry Wholesalers Association said smuggling has become more common since the government banned the import of 1-day-old chickens from China as an H5N1 prevention measure earlier this year [2008], the AFP report said. The South China Morning Post reported today that the eggs, ostensibly imported as food, contain potentially infected embryos that are less than a week from hatching, according to AFP. However, the owner of the farm that was struck by the H5N1 virus denied having smuggled any fertilized eggs from China, the report said. Elsewhere, health ministry officials in India said today that the H5N1 virus has now spread to 6 of 27 districts in Assam state, according to a report from Indo-Asian News Service (IANS) [see item 2, below]. Parthajyoti Gogoi, a health ministry official, told IANS that more than 200 000 chickens and ducks have been culled since the outbreak was 1st detected 2 weeks ago. The culling activities have affected 200 villages in Kamrup (Metro), Kamrup (Rural), Dibrugarh, Nalbari, Barpeta, and Chirang districts. Teams of doctors and paramedics are taking measures to prevent human H5N1 infections, the report said.

AVIAN INFLUENZA, HUMAN (INDONESIA): 09 Dec 2008. The Ministry of Health of Indonesia has announced 2 new confirmed cases of human infection with the H5N1 avian influenza virus. A 9 year old girl from Riau Province developed symptoms on 7 Nov 2008 and was hospitalized on 12 Nov 2008. She recovered and was discharged from hospital on 27 Nov 2008. Laboratory tests confirmed the presence of the H5N1 avian influenza virus. Investigations into the source of her infection indicate poultry deaths at her home on 2 Nov 2008. The 2nd case, a 2 year old girl from East Jakarta, developed symptoms on 18 Nov 2008, was hospitalized on 26 Nov 2008, and died on 29 Nov 2008. Laboratory tests have confirmed infection with the H5N1 avian influenza virus. Initial investigations into the source of her infection suggest exposure at a live bird market. Of the 139 cases confirmed to date in Indonesia, 113 have been fatal.

NATIONAL DISEASE REPORTS:

No New disease outbreaks were reported for CDC Critical Biological Agents for MWWR week 50.

INTERNATIONAL DISEASE REPORTS:

ANTHRAX, HUMAN (GERMANY ex FRANCE): 13 Dec 2008. Three cases of cutaneous anthrax have been notified in Moselle. This severe disease, extremely rare, is not contagious and appears to have been transmitted to the victims from a cow slaughtered on a farm. 3 people were hospitalized last week. Their health status is not "inspiring anxiousness" (that is, their life is not endangered) according to the local health authorities, which released the confirmation on 9 Dec 2008. Epidemiological investigations showed they appear to have all been contaminated during the on-farm slaughter of a bovine on 19 Nov 2008, on a farm also located in Moselle. All 3 of them had handled the carcass. 21 people located next to the farm have been examined and did not present any signs of disease, but have received a preventive treatment. All general practitioners in the region have been asked to increase awareness. An administrative doctor, Dr Michel Perette, is quoted saying that the cutaneous form of anthrax is not contagious, does transmit from animal to man but not between humans; he describes the signs and says there are only 2000 cases notified yearly worldwide. Another member of the local health authority insists on the efficacy of this disease being notifiable. It allowed a fast identification of the source of infection. Samples have been performed "on the animal suspected to have transmitted the disease." The local veterinary service has checked and found no other animals affected on the farm. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (SWEDEN): 13 Dec 2008. The herd is a small beef herd with some 45 animals. The animals are kept in doors on deep straw bedding and fed only hay of very high quality. It is an organic farm and no feed ingredients are imported. The animals were brought in from pasture in the beginning of November 2008 and about some 3 weeks later the 1st animal died. During the following week another 4 animals died and on 5 Dec 2008 the field veterinarian contacted the National Veterinary Institute (SVA) for consultation. There had been logistic problems getting the carcasses to the local laboratory for post mortem examination and the veterinarian had opened one carcass on the farm without detecting any specific signs. Anthrax was considered as a differential diagnosis already at this point, but other causes were regarded as more likely after detailed discussions and it was recommended to ensure that fresh carcasses and/or samples were brought for laboratory examination as soon as possible. The following week samples were examined at the SVA with no detection of bacterial growth or any specific histological lesions. One carcass arrived at the regional laboratory on Monday but had been transported since the previous week and was too decomposed for any macroscopic examination. Bacterial culture from a spleen swab was overgrown with contaminating flora and did not reveal any specific growth. On 10 Dec 2008, 3 carcasses from animals that had died during the night were transported directly to the regional laboratory. The macroscopic examination of the 1st animal gave rise to a suspicion of anthrax and samples (blood) from all 3 animals were sent by courier to the SVA. The herd was immediately put under restrictions. The samples arrived at the SVA on the following morning and direct smears supported the suspicion but were not conclusive. Further analysis by culture and PCR was initiated and on 12 Dec 2008 the diagnosis was confirmed. Future activities include incineration of contaminated carcasses, penicillin treatment of all remaining animals and investigations to find the possible source of the infection. All people that may have been exposed to the infection have been put on antibiotics. Every year about 5-10 of suspected anthrax cases are examined in Sweden. The unfortunate delay of one week in the diagnosis of this case is perhaps not surprising as it has now been 27 years since our last case and numerous investigations with negative results have been added to our experience. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

EBOLA-RESTON, PORCINE (PHILIPPINES): 12 Dec 2008. The Department of Agriculture (DA) on Friday said it is working on a support program to assist hog producers in farms where the Ebola Reston virus had been detected. Agriculture Secretary Arthur Yap said incentives will also be provided to other growers to encourage them to participate in the concerted government program to stamp out the disease. The planned program will include the acquisition of additional laboratory kits needed to check the presence of the virus among swine and a support package to help livestock growers whose infected hogs will be culled or destroyed by quick-response government teams led by the Bureau of Animal Industry (BAI) to prevent the spread of the Reston disease among animals. Officials of the DA and DOH along with these international health institutions have pointed out Wednesday night that the Reston virus does not pose a significant public health risk." Duque and Yap said this particular strain of the Ebola virus has been shown in the past to be non-pathogenic," which means it is not harmful to humans. Authorities say the Reston virus is entirely different from the 3 other Ebola subtypes, which are all potentially fatal to humans. Unlike the Zaire, Ivory Coast and Sudan strains, the Reston strain has not been found to be fatal like the 3 other strains or to have caused illnesses to humans in contact with the infected animals. It was first discovered in the Philippines in 1989 among crab-eating macaques or monkeys then being exported by the Laguna-based Ferlite Farms to the Hazleton Laboratories in Reston, Virginia. The WHO and OIE consider the presence of the Reston virus in the Philippines as an "animal health issue and does not consider this a significant public health concern at this time. As a matter of precaution, Yap has called on the public to report sick animals to their City and Provincial Veterinarians and to refrain from buying meats from stalls without National Meat Inspection Service (NMIS) certifications. Yap said that in general, meat from sick or already dead animals "regardless of whatever viruses these animals had been infected with" should never be eaten by people. Yap has ordered the BAI, together with the local government units (LGUs), to continually test pigs in their localities. Hogs in farms that have tested positive for the virus will be quarantined and will undergo a comprehensive inventory. All pigs found to be infected will be destroyed and disposed of properly, Yap said. As a precautionary measure, Yap had also suspended all Philippine pork exports until further notice. (Viral Hemorrhagic Fever is listed in Category A on the CDC list of Critical Biological Agents)

*Non-suspect case

BOTULISM, WOUND, DRUG-RELATED (IRELAND): 12 Dec 2008. The Health Service Executive (HSE) is today [11 Dec 2008] continuing its investigation into an outbreak of botulism among heroin users in Dublin. The move follows the death of one person yesterday [10 Dec 2008]. The HSE is investigating 6 possible cases of botulism over the last fortnight [14 days]. Botulism last occurred in drug users in Ireland in 2002, and in 2000, 8 drug users died when heroin contaminated with *Clostridium novyi* was in circulation in Dublin. Alerts have been issued to drug services and relevant clinical staff in emergency departments. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, LIVESTOCK, WILDLIFE (SOUTH AFRICA): 12 Dec 2008. An outbreak of deadly anthrax in the Northern Cape holds no risk to meat consumers, and supermarkets are not at risk of selling contaminated meat. And, although some of South Africa's meat suppliers are keeping an eye on the outbreak in the Siyancuma Municipality and parts of Zimbabwe, there is no cause for concern. Two of the country's biggest supermarket chains, Spar and Shoprite, on Wednesday [10 Dec 2008] said meat would remain on shelves and that there was no information of any beef contamination. The assurance comes after the national department of agriculture's veterinary services confirmed the Northern Cape outbreak, saying 16 sheep and 3 blue wildebeest had died of anthrax. The outbreak has been confined to a 1.5 km radius on a farm in the Douglas (Siyancuma) region. Group merchandising executive for the Spar group Mike Prentice said "big suppliers" were not even mentioning a threat to food stocks. "We will keep an eye open, and everyone is concerned about the situation. But no special precautions are being taken at this stage," he said. Sporadic outbreaks of anthrax are not uncommon, with the Northern Cape and regions near the Kruger National Park being classified endemic anthrax regions. Earlier this year [2008], the department again had to step in when thousands of wild and domestic animals were killed by anthrax near Campbell, 100 km from Kimberley. In that case, rain was blamed for helping to spread the bacteria, *Bacillus anthracis*, which can also be passed on to humans through consumption, the handling of contaminated skins or inhalation of bacteria spores. Agriculture officials have urged farmers to vaccinate their livestock against anthrax. "We advise our farmers to vaccinate their livestock. We also advise them and the community not to cut up dead animals, as these may expose the bacteria. We believe that our system of information, education and support to farmers and the community is enough to control the outbreak," agriculture spokesperson Priscilla Tsotso Sehoole said. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM, BABY FOOD (DENMARK, NORWAY): 10 Dec 2008. The Norwegian Food Safety Authority (NFSA) has issued a warning against Hipp's baby food. NFSA writes on its website that there are suspicions that Hipp's fruit puree with banana and apricot may contain [spores of] *Clostridium botulinum*, following an outbreak of illness in Denmark. NFSA are now recommending that all parents who have bought jars marked L35655, with a use-by date of 31 Dec 2008 should throw them away. "NFSA recommends that the Norwegian importers withdraw the jars of fruit puree in question, and the importers have themselves initiated this work," says Annette Haugane, section leader of NFSA at the district office for Oslo. The Danish Food Safety Authority has sent the fruit puree for test analysis, and a final confirmation as to whether the food is poisonous will come at the end of the week. *Clostridium botulinum* [toxin] is considered very poisonous even in small doses. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

VIRAL HEMORRHAGIC FEVER (BRAZIL ex SOUTH AFRICA): 09 Dec 2008. After investigations, researchers from the Oswaldo Cruz Foundation (Fiocruz), together with the Ministry of Health and the Departments of State and Municipal Health, identified the cause of death of the South African patient of 53 years who died last Tuesday (2 Dec 2008) in Rio de Janeiro, with a picture of unidentified haemorrhagic fever. The result of research shows that death was caused by spotted fever, a disease transmitted by ticks. There is no risk of transmission between people. From data on the period of stay in South Africa and in Brazil and the time required for the manifestation of symptoms, it was concluded that the [infection] did not occur in Brazil. The patient came to Brazil from South Africa, on 23 Nov 2008 at night and presented the 1st symptoms on 25 Nov 2008. [In the case of arenavirus infection] the clinical manifestations appear after an incubation period on average of 7 days and can vary from a minimum of 2 to a maximum of 15 days. "Because the symptoms appeared 2 days after his arrival in Brazil and he only went from the airport to the hotel and from there to work, there was not enough time or opportunity for him to have been infected here," said Ary Carvalho de Miranda the vice president of Reference Services and Environment of Fiocruz. The case of death of the South African [patient] mobilized a group of experts who raised several lines of research. Epidemiological research, which showed the absence of any link between this death and the cases of [arenavirus] infection that occurred recently in South Africa, and the diagnostic tests in the laboratory discarded the suspected infection by this virus. The tests were completed in the end at the Fiocruz by Saturday night [6 Dec 2008]. Suspected hantavirus, herpes, hepatitis, yellow fever, leptospirosis, malaria, and dengue, among others, were excluded by laboratory testing. "It was necessary to consider other possibilities, until we reached the [final] diagnosis of spotted fever," says epidemiologist Eduardo Hage, the Secretariat of Health Surveillance of the Ministry. Since spotted fever is not transmitted through contact between humans, starting this Sunday [7 Dec 2008] the Ministry of Health, the Departments of State and Municipal Health suspended the clinical monitoring that was being conducted involving 75 people, so far. There is no need for any other measure to protect public health, related to this case. A team at Fiocruz, led by researcher Elba Lemos, finalized the diagnosis of spotted fever on the morning of Sunday [7 Dec 2008], through PCR [polymerase chain reaction] analysis identifying the DNA of *Rickettsia* in the laboratory of Hantaviruses [and] *Rickettsioses* of IOC / Fiocruz (National Reference Laboratory for *Rickettsioses*). As the death was [attributed to] haemorrhagic fever and the patient [had been present] in villages where certain diseases occur that are nonexistent in Brazil, all [diagnostic procedures were undertaken] in laboratories of biosafety level 3 (NB3) -- recommended procedure for the investigation of unknown pathogens -- ensuring the containment of the agent and the

safety of professionals involved in the analysis. [Spotted fever] is difficult to diagnose, especially in its initial phase, since the symptoms are similar to those of other infectious febrile diseases. The [onset] is generally sudden and usually the 1st symptoms are nonspecific, including fever (usually high), headaches, muscle aches, general malaise, nausea, and vomiting. Bleeding may occur during the evolution of the disease. Researchers are carrying out a molecular characterization to identify which species [or rickettsia] was responsible for this death. The information will be communicated the Pan American Health Organization (PAHO). (Viral Hemorrhagic Fever is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE (PERU): 08 Dec 2008. Mr Manuel Aguinaga-Perez, mayor of Oyotun, reported today [3 Dec 2008] that the city council of Oyotun, a district located 83 km (52 miles) east from Chiclayo [capital city of Lambayeque Department on the northern Peruvian coast], is declaring an emergency alert because of the risk for a potential outbreak of bubonic plague as a result of the presence of a "massive" number of rats that have destroyed 360 hectares (890 acres) of crops in this area. Mr Aguinaga reported that specialists from the Ministry of Health had found up to 25 Asiatic rat fleas (*Xenopsylla cheopis*), vectors of bubonic plague, per rat. For this reason, he declared that they fear the occurrence of an outbreak of plague. A similar situation occurred 14 years ago in Morrope District, where more than 100 people died. "This phenomenon alarmed local health authorities, and we are working alongside every involved area in order to prevent the occurrence of a deadly epidemic," he declared. Even though Mr Aguinaga pointed out that to date not a single case of plague has been reported in Oyotun, he said "there is a potential threat that may expand and burst like a flame, and this is an important reason for concern." He indicated that the communities of Campo Nuevo, Zorronto, Pan de Azucar, Macuaco, and Espinal had lost about 360 hectares of crops, mainly cornfields, because of the massive presence of rats, and this has caused serious economical problems for local farmers. "We are requesting from the regional government financial support, particularly seeds for affected farmers," Mr Aguinaga added; and he observed that the presence of a massive rat invasion had been reported since last June [2008], and now has spread to the higher parts of the district. Mr Aguinaga pointed out that, under the leadership of the Ministry of Health, a coordinated plan was elaborated with the participation of the Agricultural sector and the district municipality, since massive rodent elimination may lead fleas to feed on other warm-blooded mammals. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST:

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://bioterrorism.dhmd.state.md.us/>

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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